and works ranged from dietetics to zoology, from botany to mineralogy. He started his career as a physician in several localities of the Austrian Empire (Trent, Graz, Vienna, and Carniola in Slovenia) and was subsequently appointed as professor of Botany and Chemistry first at Schemnitz (now Czechoslovakia) and finally at the University of Pavia. His ornithological writings are included in the Anni Historico-naturales (1769–1772), Introductio ad historiam naturalem (1777) and in Deliciae Florae et Faunae Insubricae (1786–88), where he described several new species and genera of birds (such as Sylvia, Apus, Branta) in accordance with Linnaeus' system.

An early appreciation of Scopoli's ornithology is documented by a famous letter by Gilbert White: "Scopoli's characters of his ordines and genera are clear, just and expressive, and much in the spirit of Linnaeus. There is room to expect great things from the hands of that man, who is a good naturalist; and one would think that a history of the birds of such a distant and southern region as Carniola would be new and interesting. Every kingdom, every province should have its own monographer...". The influence that Scopoli had on Italian ornithology was to be noticed in the long run, as it inspired directly or indirectly a series of regional works on birds from several districts, such as—among others—Bonelli's Catalogue of the birds of Piedmont, and Savi's Tuscan Ornithology. Scopoli's adherence to the Linnaean rules (but not as blindly as Stresemann hastily remarked) helped to consolidate the use of the binomial system in the ornithological literature of our country.

Birds of a northern Venezuelan secondary-scrub habitat

by Betsy Trent Thomas

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Secondary-scrub habitat is distributed widely in the neotropics, and increasing especially in areas adjacent to growing urban populations. Although this habitat generally ranges from Mexico to Argentina, few long-term observations have been published about the birds of this community. In addition to the obvious application to conservation, of a species list at a site likely to undergo further alteration and degradation, there are other uses for such a list. Monthly presence, abundance, breeding, and moult records for over 19 years indicate which species are resident and which are long-distance migrants, both North American and austral. Less clear are Venezuelan species that use secondary-scrub habitat seasonally and are probably local wanderers, or are genuinely uncommon birds.

The Appendix is a compilation of data collected mostly from April 1966 through June 1984. It gives 191 species, of which c. 36% (n=69) are residents of the study site or nearby areas, c. 7% (n=13) are North American migrants, and c. 3% (n=6) are believed to be austral migrants. Austral is used in the sense of south of Venezuela, not necessarily south of the equator.

Study site and methods

The 147 ha site of this study was Urbanización Los Anaucos which is 30 km south of Caracas, Venezuela, in the state of Miranda at $10^{\circ}19'\text{N}$, $66^{\circ}51'\text{W}$. This area consists of steep (up to 45% grades) south-facing

foothills of the Coastal Cordillera that surrounds Caracas. The original forest was cleared over 400 years ago, resulting in the impoverished and degraded low deciduous forest of the present. In the early years of this century the land was part of a large hacienda, and in the 1930s much of it was cleared for coffee growing with *Erythrina poeppigiana* trees planted to shade the coffee. Coffee growing here was not a success, probably because of insufficient rainfall, and much of the land was allowed to regenerate. By the mid-1950s most of the study area had been converted to a residential neighbourhood built on the steep hills surrounding a golf club in the valley. The houses, and their access of paved streets, were widely separated. In 1964 a 4-lane limited-access highway cut off the higher-elevation part of Los Anaucos. This 6-ha forested section at 825–1010 m had a few lingering coffee shrubs, a closed canopy *c*. 20 m high of indigenous trees, and occasional large bamboo clumps. It was not subjected to wildfires.

Most bird observations were made in the lower (550-800 m) area of 141 ha. A seldom-used golf course and soccer field (c. 48 ha) were in the valley. The area surrounding the valley was intersected by many dry watercourses and gullies that carried surface water only during heavy rains. The deciduous vegetation was generally less than 10 m high consisting of native trees and abundant vines with an open understory, and some large bamboo clumps. In the valley, partly bordered by the golf course, was the Quebrada Caiza, a small permanent watercourse that supported a richer and higher native vegetation (trees to 25 m) along its edge. Extensive secondary grass-covered hillsides surrounded much of the study area. During the dry season frequent wildfires swept drier areas, destroying all surface vegetation. In April 1977 such an area was burnt, and from 1981 to 1984 I studied more intensively the birds of a 13 ha section of the regenerating habitat where the dominant vegetative species was mesquite *Prosopis juliflora*. Opportunistic mist-netting (543 net hr), mostly to colour-band birds, was done mainly in this 13-ha site from 1976 to 1984. Weights of those birds were reported (Thomas 1982, 1990), and additional detailed data for two species are in Thomas (1977, 1983).

Ewel & Madriz (1968) list the area as *bosque seco premontano transición*, giving 865 mm average annual rainfall. Rainfall collected in the valley from June 1982 through May 1984 averaged 678 mm for the two years. Those may have been drier years than usual or, more likely, because the Los Anaucos site is in a rain shadow of adjacent higher mountains to the north. The usual seasonal rainfall pattern was of little precipitation December through March, the dry season, to heavier rains June to September, the wet season. The months of April–May and October–November were variable throughout the years of study. Rains sometimes began in April, and in other years rain continued into November. This same irregular rainy season was found in the llanos of Venezuela (Thomas 1985). The annual temperature of the valley varied from 14° to 39°C.

During the years of this study I lived at two different locations in the study area and made 348 census counts, generally in the morning averaging 3 h each. These data were supplemented with opportunistic observations throughout the day and vocalization records in the night. In addition I visited the study area for five days in February 1987 and three days in May 1988. Due to the steep nature of the terrain it was never possible to survey all the study area in a single day, but an effort was made to visit most different micro-habitats throughout the year.

Nomenclature and sequence generally follow the AOU Checklist (1983), with Tyrannidae following Traylor (1977) and Thraupidae following Isler & Isler (1987).

Discussion and results

The breeding season of most neotropical birds appears to be rainfall dependent (Friedmann & Smith 1950, 1955, Snow & Snow 1964, Haverschmidt 1968, ffrench 1973, Thomas 1979). Friedmann & Smith (1950, 1955) published a detailed account of eight years of observations and collecting in the Venezuelan states of Anzoategui and Monagas, an area approximately 300 km southeast of the Los Anaucos site. However, their area differed from Los Anaucos because the vegetation was not second growth, and the altitude was lower with higher rainfall. Approximately 65% of the species in the Appendix are found also on their list.

Agreeing with Haverschmidt (1975), I did not find Colombina passerina and C. minuta in the same micro-habitats. C. passerina was found only in the 13-ha valley wildfire area at 550 m, while C. minuta was found at about 700 m where vegetation was less subject to wildfires. Columbina talpacoti was sympatric with both smaller doves.

The breeding data in the Appendix agree generally with other longterm Venezuelan observations (Friedmann & Smith 1950, 1955, Thomas 1979), with the exception of that for *Ortalis ruficauda*. Friedmann & Smith list April–June as breeding months. Schäfer (1953–1954) said that it breeds at the same time as in the llanos, May to the end of July. Lapham (1970) found breeding in the llanos May–June. However, for the ranch Masaguaral, Estado Guárico, close to Lapham's study site, I have a record of a nest with a fresh egg on 16 March 1981 (unpublished).

My Los Anaucos records for *Ortalis* are all based on observations of young chicks. On 17 January 1977 I encountered three adults, in thick high vegetation, leading two stripe-headed downy chicks, of c. 10 cm, that were unable to fly. On 24 March 1974 I found a downy young bird of c. 12 cm that could run well on the ground but not fly. Its parents were carrying banana from my nearby bird feeder to it. By 31 March this same chick was still covered with rufous body down with strong, dark crown and nape stripes, but it could fly about 1 m distance, and was brought by its parents to the bird feeder, where it was fed bananas. On 29 October 1971, near dusk, I found two adults at about 3 m high in a thorny tree guarding a very young chick. This chick was downy as described above, it could not fly and it balanced unsteadily in the tree branches.

The hummingbird breeding season is in the dry season at Los Anaucos, just as Snow & Snow (1964) found in Trinidad, with one exception. *Phaethornis augusti* bred in the wet season. Two reasons may account for this difference. It may need rain to make mud available with which its pendent nest is balanced (Gilliard 1959), and I believe it is more insectivorous than other hummingbird species.

I give breeding data for 90 spp., but Snow & Snow (1964) suggested that the timing of moult might be an even more precise way of determining breeding. Therefore, I have included moult data in the Appendix, for 33 species that I found in remigial or rectricial moult from mistnetting. This extends the data for seven species for which I lacked more direct breeding observations.

In the Appendix, an 'x' indicates that the bird was observed during the month; a 'B' indicates breeding as determined by nest building, copulation, a nest with eggs or young, or counted back from observations of adults feeding recently fledged young; a '.' indicates the species was not observed in that month in any of the 19 years. A bracket indicates primary or rectricial moult in the months bracketed. Abundant means that the species can always be found on the study site, common that it is likely to be encountered on 75% or more of censuses, fairly common on 50% of the censuses, uncommon on 25%, and occasional on less than 25% of field censuses. Rare indicates that I found the species less than five times. A few birds were found only in the higher-elevation forest and they are marked 'forest'.

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Address: Betsy Trent Thomas, Waterfield, Rt. 1, Box 212 C, Castleton, VA 22716, U.S.A.

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APPENDIX Birds recorded at Los Anaucos, Estado Miranda, Venezuela

Family and species	J	F	М	А	М	J	J	А	s	0	Ν	D	Abundance
PODICIPEDIDAE (1)													
Podiceps dominicus	·	х				•	•			х			Rare; seasonal pond
CATHARTIDAE (2)													1981
Cathartes aura	х	х	х	х	х	х	х	х	х	х	х	х	Common resident
Coragyps atratus	х	х	х	х	х	х	х	х	х	х	х	х	Common resident
ACCIPITRIDAE (9)													
Gampsonyx swainsonii	Х	•		•	·	•	•	•	В	В	х		Uncommon
Elanoides forficatus	•	·	•	•	•	•	•	·	х	·	·	·	Rare vagrant
Leptodon cayanensis Chondrohierax uncinatus	-	·	÷	•	•	· D	x B	•	•	·	·	•	Rare Rare; Dec 1980 and
	•	•	·	х	•	В		х	Х	х	•		pair in 1981
Buteo albicaudatus	Х	В	Х	х		•	Х	Х	Х	Х	х		Uncommon
Buteo platypterus	Х	Х	Х	·	•	·	·	·	·	Х	•		Rare N. Am. migrant
Buteo magnirostris Buteo nitidus	X	X	X	х	х	x	х	X	х	X	x		Common resident
Spizaetus tyrannus	Х	х	X X	Х	х	х	х	х	х	х	X X		Uncommon resident Rare vagrant
FALCONIDAE (5)	•	•	л	•	•	•		•	•	·	л	л	Rare vagrant
Herpetotheres cachinnans	x	х	х	x			х	х	х	х	x		Uncommon
Milvago chimachima	x	x	x	x	x	x	x	x	x	x	x		Fairly common
													resident
Polyborus plancus	х	х	Х	х		х				х			Occasional
Falco femoralis								х		х			Rare vagrant; 1979
Falco sparverius CRACIDAE (1)		х	х	Х	•	•	·	х		х	·	х	Occasional
Ortalis ruficauda PHASIANIDAE (2)	В	В	В	Х	х	х	х	х	х	В	х	В	Abundant resident
Colinus cristatus	х	х	х	х	х	х	х	В	В	В	х	х	Fairly common resident
Odontophorus columbianus		х			х								Rare; one 1966 & 1967
RALLIDAE (1)													
Aramides cajanea JACANIDAE (1)	х	х	х	х	х	х	х	х	х	х	х	Х	Uncommon resident
Jacana jacana '	•							х					Rare; seasonal pond
COLUMBIDAE (7)													1901
Columba cayennensis							х						Rare
Columbina passerina		B	x	x	x			x	x	x	x		Occasional
Columbina minuta	х	x	х	x	x	x	x			B	x		Uncommon
Columbina talpacoti	х	(B)	В	х	х	х	В	В	В	В	х	(x)	Fairly common
												. ,	resident
Claravis pretiosa	•	·	•	х	•	В	В	х	•	х	•	•	Occasional seasonal migrant
Scardafella squammata	В	х	х	х	х	х	х	х	х	х	х	х	Common resident
Leptotila verreauxi	x	х	x	В	В	В	x	x	x	x	х		Abundant resident

Continued

Family and species	J	F	М	А	М	J	J	А	s	0	N	D Abundance
PSITTACIDAE (2)												
Aratinga pertinax	х	х	В	В	х	x	х	х	х	x	х	x Common resident
Forpus passerinus	х	х	х	х	х		х		х	х	х	x Fairly common
CUCULÍDAE (8)												-
Coccyzus americanus											х	. Rare N. Am. migrar
Coccyzus melacoryphus					х	х	х	х	В	х		. Occasional austral
												migrant
Coccyzus lansbergi						х	х	х	х	х	х	x Occasional austral
D:					Б							migrant
Piaya cayana	х	х	х	х	В	х	х	(x)	х	х	х	x Fairly common
D'anna an Ìomta												resident
Piaya minuta	•	х	•	·	·	·	•	•	·	·	·	. Rare vagrant; 1982
Crotophaga ani	X	x	х	X	х	х	x	х	x	х	х	x Common resident
Crotophaga sulcirostris	X	х	x x	x	x B	$\mathbf{B}^{\mathbf{X}}$	x B	X X	x	÷		x Fairly common x Common resident
Tapera naevia STRIGIDAE (3)	х	х	х	х	Б	D	D	х	х	х	х	x Common resident
Otus choliba		В	в	В		•			•			x Common resident
Glaucidium brasilianum	X				х	X	X	X	X	X	X	x Fairly common
Rhinoptynx clamator	X X	X X	x x	x x	x	x x	x x	x x	X X	X X	X X	x Common resident
CAPRIMULGIDAE (2)	л	л	л	л	А	л	л	х	л	л	л	x common resident
Nyctidromus albicollis	x	х	В	в	В	В	x	x	x	x	x	x Common resident
Caprimulgus rufus		X	р	x	x	x	л	А				. Occasional austral
Cuprimuigus rujus	•	л	·	л	A	л	•	·	•	•	·	migrant
NYCTIBIIDAE (1)												mgrane
Nyctibius griseus	х	x		x	х	х	х	х	x	х	x	x Fairly common
APODIDAE (2)			·		~							
Streptoprocne zonaris	x	x										. Rare vagrant
Panyptila cayennensis			÷	ż	÷	÷	÷	Ż	÷	Ż	x	. Rare vagrant
TROCHILIDAE (11)												
Glaucis hirsuta	х	х	х	х	x	х			х	х	х	x Occasional
Phaethornis augusti	(x)	х	В	В	В	В	В	х	В	х	х	x Common resident
Phaethornis longuemareus	X			х						х		. Rare
Colibri coruscans	х											. Rare
Anthracothorax nigricollis		х	х							Х		. Rare
Klais guimeti			х		х						х	. Rare
Chlorostilbon mellisugus	(B	x)	х	х	х	х	х	В	В	х	В	B Common resident
Amazilia fimbriata	х	х	х	х	х	х	х	х	В	В	х	x Common resident
Amazilia tobaci	(x)	х	х	х	х					Х	х	x Occasional seasonal
												migrant
Amazilia tzacatl	х						•	•	•	·		. Rare; 1977 & 1980
Chalybura buffonii	х	х		х			·		·	·		x Occasional
TROGONIDAE (1)												
Trogon collaris	•	•	•		•		·		·	х		. Rare; 3 together 197
BUCCONIDAE (1)												D
Hypnelus ruficollis	х	х	х	х	х	х	х	х	х	х	х	x Fairly common
												resident
GALBULIDAE (1)		D	D	D	D				()			. Common model and
Galbula ruficauda	х	В	В	В	В	х	х	х	(x)	х	х	x Common resident
PICIDAE (6)			P				р		р	P	P	v. Common resident
Picumnus squamulatus	x	х	В	X	X	х	В	х	В	В	В	x Common resident
Chrysoptilus punctigula	Х	•	X D	В	В	•	·	х	х	х	·	x Uncommon
Piculus rubiginosus		•	B		•	·	·	•	•	•	·	. Rare vagrant, forest x Occasional
Dryocopus lineatus Molanertes rubricatillus	X	X	x B	X D	x B			X	X	X		x Common resident
Melanerpes rubricapillus Veniliornis kirkii	x B	X	В	B B	В Х	х	X	X	X	x x	x x	x Uncommon resident
v enillornis kirkli	D	х	D	D	х	•	х	х	х	х	х	x oncommon residen

15

APPENDIX Continued

			_			-							
Family and species	J	F	М	А	М	J	J	А	\mathbf{S}	0	Ν	D Ał	oundance
FURNARIIDAE (6)		р		р		р	р	р				Commo	
Synallaxis albescens Synallaxis cinnamomea	х	B	X X	В	х	В	В	В	х	X X	х	x Commo . Rare	n resident
Čranioleuca subcristata	·x	X	B	· x	x	· x	B	•	•	X	•	. Occasio:	nal
Phacellodomus rufifrons	(x	x)	x	x	x		B	Ŕ	B	x	×	x)Commo	
Syndactyla guttulata	(14		x		x							. Rare	
Xenops minutus			X	x								. Rare; or	ly 1988
DENDROCOLAPTIDAE	E (6)											,	
Dendrocincla fuliginosa	х	х									х	. Uncom	non
Sittasomus griseicapillus	х	х	Х	В	В	х	х	х	х	х	х	x Uncomi	non resident
Xiphocolaptes													
promeropirhynchus	•	•	·	х	•	·	•	·	·	•	·	. Rare	
Xiphorhynchus guttatus	х	Х	х	X	X	·	· D	·	·	X	х	. Occasio	
Lepidocolaptes souleyetii Campylorhamphus	х	х	х	х	х	·	В	·	х	(x)	х	. Uncom	non resident
trochilirostris	х	x	х	v	х	x	v	v		x	х	x Fairly co	mmon
l'ochili ostris	А	х	х	х	х	А	х	х	х	А	х	resident	
FORMICARIIDAE (7)												resident	
Taraba major	х	x	x	x	х	х	х	В	x	(x)	x	x Fairly co	ommon
i al aca major						11		D	**	(11)	11	resident	
Thamnopilus doliatus	(x)	х	х	х	В	В	(x)	х	х	х	x	x Commo	
Herpsilochmus	. /						()						
rufimarginatus				х								. Rare	
Formicivora grisea	х	х	х	х	х	х	х	х	х	(x)	х	x Commo	n resident
Drymophila caudata			х	х	х	В	•					. Occasion	
Myrmeciza longipes	х	х	Х	х	В	В	х	х	(x	х	x)	x Fairly co	
												resident	
Grallaricula												D	
ferrugineipectus TYRANNIDAE (26)	х	х	х	•	·	·	·	•	•	·	·	x Rare	
Zimmerius vilissimus	х	х										. Rare	
Camptostoma obsoletum	x	x	x	x	B	·x	x	x	x	· x	· x	x Commo	n resident
Phaeomyias murina	x	x	x	x	x	x	x	x	x	x	x	x Fairly co	
										-		resident	
Sublegatus arenarum	х			х			х			х	х	. Occasion	
Myiopagis gaimardii		х										. Rare	
Myiopagis viridicata		х	х	х	х	х	х	х		(x	x)	x Uncomr	non
Elaenia flavogaster	х	(x)	х	х	х	х	х	х	х	х	х	x Commo	n resident
Elaenia parvirostris		•			х	х	х	х	х				non austral
					D	D						migrant	
Euscarthmus meloryphus	х	х	х	х	В	В	х	х	х			x Commo	n resident
Mionectus olivaceus	X	, D	, D	Х	'n	•	•	•	·	•	•	. Rare	
Leptopogon superciliaris	X	B	B	B	В	X	:	•		X	x	. Fairly co	
Phylloscartes flaveola Atalotriccus pilaris	X X	x x	X X	$\mathbf{B}^{\mathbf{X}}$	x B	x B	X X	X X	$\begin{pmatrix} x \\ (x) \end{pmatrix}$	X	x x	x Commo x Commo	
Todirostrum cinereum	X	X	X	B	B	B	B	B	(X) X			x Commo	
Tolmomyias flaviventris		л	л	Б	D	р	Б	х	А	(A	л) •	. Rare	li lesident
Myiophobus fasciatus	x	Ġ	Ġ	ė	B	B	(B	x	x)	·x	x	x Commo	n resident
Contopus cinereus	x	x								x		. Rare	controlle
Contopus fumigatus			x							x		. Rare, for	rest
Cnemotriccus fuscatus	х	х	х	х	х	В	х		(x	x)		x Fairly co	
												resident	
Myiarchus tyrannulus	х	В	В	В	В	В	х	х	x	х	х	x Commo	
Pitangus sulphuratus	х	В	В	В	В	В	х		(x)		х	x Abunda	
Megarhynchus pitangua	х	х	х	х	х	В	х	х	х	х	х	x Uncomr	non

APPENDIX Continued

Family and species	J	F	М	А	М	J	J	А	S	0	Ν	D	Abundance
Myiozetetes cayanensis			x	x			x	x	x	x			Occasional
Myiozetetes similis	х	х	х	В	В	В	х			х	х		Occasional
Myiodynastes maculatus				х	В	•	•	•					Rare vagrant
Tyrannus melancholicus	х	х	х	х	х	х	х	х	х	х	х		Fairly common resident
COTINGIDAE (3)								п					D ' 1
Pachyramphus rufus	х	X	X	х	х	х	·	В	х	х	х	х	Fairly common
Pachyramphus castaneus Pachyramphus	·	х	х	·	•	·	·	·	·	·	·	·	Rare; 1970 & 1977
polychopterus PIPRIDAE (1)		x	·	•	х	х	·	•	•		·	•	Rare
Chiroxiphia lanceolata	x	х	x	х	В	В	х		х	х	х	х	Fairly common
													resident
HIRUNDINIDAE (3) Notiochelidon cyanoleuca	х	x	х	В	х		x	х	x	х		х	Occasional
Stelgidopteryx ruficollis	x	x	x		B	x	x	x					Occasional
Hirundo rustica													Rare N. Am. migrant
TROGLODYTIDAE (4)		р			р								D 11
Campylorhynchus nuchalis	х	В	х	х	В	х	х	х	х	х	х		Fairly common resident
Thryothorus genibarbis	х	х	х	В	В	х	х	х	х	(x)	х	х	Fairly common resident
Thryothorus rutilus	x	х	x	х	в	В	В	x	х	x	x		Common resident
Troglodytes aedon	x	X	x	x	x	x	B	B	B	x	x		Common resident
MUSCICAPIDAE (8)		-											
Ramphocaenus melanurus	х	В	х	X	X	X	х	÷	х	х	х		Occasional
Polioptila plumbea	х	х	х	В	В	В	х	В	х	х	x		Abundant resident
Catharus aurantiirostris Catharus fuscescens	x	x	x	х	х	х	х	х	х	X X	х	•	Occasional, resident Rare N. Am. migrant
Catharus minimus	:	÷	÷	x		:		:	÷	л	x		Rare N. Am. migrant
Turdus leucomelas	x	x	x	B	B	B	x	x	x	x	х	x	Common resident
Turdus fumigatus								х					Rare, forest
Turdus nudigenis MIMIDAE (1)	х	х	х	х	В	В	В	х	(x	x)	х	х	Common resident
Mimus gilvus VIREONIDAE (5)	В	В	В	В	x	х	x	х	х	х	В	В	Common resident
Cyclarhis gujanensis	x	х	х	х	В	В	х	х	х	(x)	х	x	Common resident
Vireo olivaceus		х	х	х	х			х		•			Occasional
Vireo gilvus	•				•	•		÷	·	X	·	•	Rare
Hylophilus aurantiifrons	х	х	х	х	х	х	·	В	(x	x)	х	X	Fairly common resident
Hylophilus flavipes		х	x	х	x	х	х	х	х	x	х		Uncommon
EMBERIZIDAE (53)													
Vermivora peregrina	х	·	·	х	·	·	·	·	·	·	·		Rare N. Am. migrant
Parula pitiayumi Dendroice peteebie	·	x	X	х	·	·	•	•	•	·	x		Uncommon
Dendroica petechia Dendroica striata	•	х	х	х	•	•	•	•	•	v	х		Rare N. Am. migrant Rare N. Am. migrant
Setophaga ruticilla	x	· x	· x	· x	X X	•	•	•	•	X X	x		Occasional N. Am.
Scrophaga varietta						•	•	•	•			1	migrant
Seiurus noveboracensis	х				х					х			Rare N. Am. migrant
Geothlypis aequinoctialis		х	х	х	х		х	х	х	·	х		Occasional
Oporornis agilis	•	·	·	х	·	•	•	·	•	х	÷		Rare N. Am. migrant
Myioborus miniatus Basileuterus culicivorus			X	•		•		•	•	X	X		Rare, forest Occasional
Basileuterus culicivorus Basileuterus flaveolus	х	x		х	x x	·	x x	·	х	х	х		Rare
Dasneuterus flaveotus	•	•	·	·	х	•	х	•	•	•	·	л.	ivaic

APPENDIX

Continued

Family and species	J	F	М	А	М	J	J	А	s	0	Ν	D	Abundance
Coereba flaveola	В	В	В	В	в	x	В	В	в	x	x	В	Abundant resident
Thlypopsis fulviceps	х	В	х	х	х		х	х	х	х	х	x (Occasional, resident
Rhodinocichla rosea	х	х	х	х	х	х	х	В	х	х	х	x	Fairly common
Tachyphonus rufus	х	х	х	х	в	В	В	в	(x	х	x)	X	Abundant resident
Piranga rubra			х							х	х	. 1	Rare N. Am. migrant
Ramphocelus carbo	х	х	х	х	х	х	В	В	х	х	х	x (Common resident
Thraupis episcopus	х	х	х	В	в	В	В	В	В	х	х	х (Common resident
Thraupis sayaca				В	в		х	(x)	х			. (Occasional
Thraupis palmarum				х			х	х	х		х		Uncommon
Euphonia trinitatis	х	В	х	В	х		х	х	х	х			Uncommon
Euphonia laniirostris	х	х	В	В	В	х	В	В	х	х	х		Fairly common resident
Euphonia xanthogaster	х		х									. 1	Rare; 1968 only
Tangara guttata			х	х	х		х			х	х	. 1	Uncommon
Tangara cayana	х	х	х	В	В	х	В	(x)	х		(B)	x	Fairly common
Tangara cyanoptera			х	х	х		х	х		В	х		Uncommon resident
Cyanerpes caeruleus										х	х	.]	Rare, forest
Tersina viridis	•	•	•	х	В	•	•	•	•	х	•		Uncommon austral migrant
Saltator coerulescens	(x)	\mathbf{X}	В	х	В	В	В	(x	B)	х	x	x (Common resident
Saltator albicollis	х	х	х	х	х	х	х	х	х	х	х		Fairly common resident
Pheucticus ludovicianus										х		. 1	Rare N. Am. migrant
Cyanocompsa brissonii	х	х	В	х	В	В	х	х	х	х	x	x]	Fairly common
													resident
Coryphospingus pileatus	х	х	х	х	х	х	В	х	х	х	х	хI	Uncommon
Atlapetes semirufus					х		х					. 1	Rare
Arremon schegeli	(x)	х	х	х	х	х			х		х	х (Occasional
Arremonops conirostris	X	х	x	В	В	В	В	В	В	(x	x)	x (Common resident
Volatinia jacarina		х	х	х	х	В	В	В	В	х	х	хI	Uncommon
Sporophila intermedia	X	х	х	х	х	х	х	х	В	х	х	x	Fairly common
Sporophila bouvronides		•	·	•	·	·	х	х	х	х	·		Occasional austral migrant
Sporophila nigricollis	х	х	х	x		x	x	В	В	В	х		Fairly common
Sporophila obscura	(x	x)											Rare
Sporophila minuta	X	x	x	x	x	÷	x	÷	x	÷	÷		Occasional
Oryzoborus angolensis										x			Rare
Tiaris bicolor		x		÷									Rare
Sicalis flaveola	х	х	x	х	x		х	х	В	В	х	хI	Uncommon
Quiscalus lugubris	х	х	х	х	х	В	х	х	х				Uncommon
Molothrus bonariensis	х	х	x	х	В	В	В	х	х	х	x		Common resident
Icterus auricapillus	х	х	х	х	х	х		В	В	В	х	BI	Fairly common resident
Icterus icterus							v					-	Rare
Icterus nigrogularis	·x	·x	·x	·x	•	· x	x B	·x	·x	·x	·x		Common resident
Cacicus cela	x	X	x	X X		х •		х	х	B	x		Occasional
Psarocolius decumanus	x	X	x	x	·x	·x	· x	B	x	x	X		Uncommon
Gymnomystax mexicanus	x	X	X	X	x	x	X	x	x	B			Common resident
FRINGILLIDAE (1)	л	Λ	л	Λ	л	л	л	л	л	D	л		Common resident
Carduelis psaltria	(x)	x	х	х	x	x		x	x	В	х	x (Occasional